

REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

In the Office Action dated October 19, 2005, the Examiner rejected claims 1-19, under 35 U.S.C. §112, ¶2, as allegedly being indefinite; rejected claims 1, 2, 5, 7-12, 15, and 17-19, under 35 U.S.C. §102(a), as being allegedly being unpatentable over Kubo '769 (U.S. Patent Pub. No. 2003/0141769); rejected claims 3, 4, 13, and 14, under 35 USC §103(a), as allegedly being unpatentable over Kubo '769 in view of Tamai '170 (U.S. Patent Pub. No. 2004/0032170); and rejected claims 6 and 16, under 35 USC §103(a), as allegedly being unpatentable over Kubo '769 in view of Aoyama '381 (U.S. Patent No. 5,808,381).

By this Amendment, Applicants have amended independent claims 1, 10, and 11, to provide a clearer presentation of the claimed subject matter. The amendments overcome the alleged indefiniteness asserted by the Examiner. Applicants submit that no new matter has been introduced. Accordingly, Applicants request the immediate withdrawal of the rejections to claims 1-19, under 35 U.S.C. §112, ¶2.

Applicants respectfully traverse the prior art rejections, under 35 U.S.C. §102(a), §103(a), for the following reasons:

II. Prior Art Rejections Under 35 U.S.C. §102(a), §103(a).

The Examiner indicated that the prior art rejections were sustained given the indefiniteness rejection of claims 1-19. (*See*, Office Action, page 4). The indefiniteness rejection was premised on the assertion that it was unclear on how the separation layers and the cooling element could be in substantial thermal contact with the separation layers and still be independent. (*See*, Office Action, page 2). Applicants submit that the claim phrase was intended to identify that the cooling element and the separation layers are distinct from each other and do not comprise the same component.

To this end, amended claim 1 now positively recites that the plurality of coils are separated from each other by one or more separation layers of high thermal conductivity material arranged to be in substantial thermal contact with at least one cooling element that is distinct from said one or more separation layers. These features are amply supported by the embodiments described in the Specification. (*See, e.g.*, Specification: par. [0055]-[0056], FIGs. 3-5).

With this said, in contrast to the Examiner's contentions, there is nothing in the references of record, including the Kubo '769 reference, that teaches the combination of features recited in claim 1. In particular, the Kubo '769 reference discloses the use of a coil unit **160** that is divided into the upper partial coil **161** and the lower partial coil **162** and a first cooling pipe (coolant channel) **153** that is interposed between the upper and lower coils **161** and **162**. The material of the first cooling pipe **153** is preferably a high-thermal-conductivity material such as copper or stainless steel in order to increase the heat transfer efficiency from the outside to the inside. A coolant **154** is preferably an inert substance with a large specific heat and low viscosity. (*See, e.g.*, Kubo '769: par. [0066]; FIG. 1).

According to the Examiner, Kubo '769 teaches that, in addition to acting as a cooling element, the cooling pipe **153** also acts as a separation layer because the pipe is made from high-thermal conductivity materials and is sandwiched between coils **161** and **162**. (*See*, Office Action, page 3). Thus, the separation layer and the cooling element are one and the same. This is in direct contrast to claim 1, which explicitly requires that the cooling element is distinct from the separation layer.

For at least this reason, Applicants submit that the Kubo '769 reference does not teach each and every element of the claimed combination of elements recited by amended claim 1. Accordingly, the Kubo '769 reference cannot anticipate claim 1 and Applicants respectfully request the withdrawal of the rejection of claim 1, under 35 U.S.C. §102(a). Applicants also request the withdrawal of the §102(a) rejections with respect to claims 2, 5, and 7-11, which depend from claim 1.

Moreover, because independent claims 10 and 11 recite similar features to claim 1 that have already been shown to overcome the §102(a) rejections, Applicants request the withdrawal of these rejections for claims 10 and 11 as well as for claims 12, 15, and 17-19, which depend from claim 11.

Further, as best understood, none of the references of record are capable of curing the deficiencies noted above regarding claim 1. That is, neither Tamai '170 nor Aoyama '381 teach that the plurality of coils are separated from each other by one or more separation layers of high thermal conductivity material arranged to be in substantial thermal contact with at least one cooling element that is distinct from said one or more separation layers, as required by claim 1. Thus, claim 1 is patentable over each of the references of record and claims 2-9 are also patentable by virtue of dependency as well as for their additional recitations. Also, because independent claims 10 and 11 recite similar features to claim 1 that have already been shown to be patentable, Applicants submit that claims 10 and 11 are also patentable and that claims 12-19, which depend from claim 11 are also patentable. To this end, Applicants request the immediate withdrawal of the rejections to claims 3, 4, 6, 13, 14, and 16, under 35 U.S.C. §103(a).

II. Conclusion.

All matters having been addressed and in view of the foregoing, Applicants respectfully requests the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Applicants submit that the entry of this Amendment is proper under 37 C.F.R. §1.116 as the claim changes: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not require any further consideration as the changes incorporate, in one form or another, features already claimed and presumably searched; and (c) places the application in better form for an Appeal, should an Appeal be necessary.

Applicant's Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. Please charge any fees associated with the submission of this paper to Deposit Account Number **033975**; Order No. 081468/0308406. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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